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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,564	01/08/2007	Thierry Cholley	Q93036	6629

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EXAMINER	
BOYER, RANDY	
ART UNIT	PAPER NUMBER
1797	

NOTIFICATION DATE	DELIVERY MODE
08/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/567,564	CHOLLEY ET AL.	
	Examiner	Art Unit	
	RANDY BOYER	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges Applicant's response filed 7 June 2010 containing amendments to the claims and remarks.

2. Claims 1-23 are pending. Claim 23 is withdrawn from consideration as being directed to a non-elected invention. Consequently, only claims 1-22 are pending for examination.

3. The previous rejections of claims 1-22 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) are withdrawn in view of Applicant's amendments to the claims.

4. New grounds for rejection, necessitated by Applicant's amendments to the claims, are entered under 35 U.S.C. 102(b) and 35 U.S.C. 103(a). The rejections follow.

Claim Rejections - 35 USC § 102 / 35 USC § 103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 5, 17-19, and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vangermain (US 3,526,645).

9. With respect to claims 1 and 5, Vangermain discloses a catalyst (see Vangermain, Abstract) comprising: (a) a medium with a base of at least one refractory oxide (aluminum oxide, silica gel) (see Vangermain, column 5, lines 1-5), wherein the at least one refractory oxide contains 0.1 to 3% by weight of at least one metal of group VIII, and 0.1 to 3% by weight of at least one metal of group VI (see Vangermain, column 3, lines 29-34; and column 5, lines 25-34); and (b) an oxime (e.g., dimethylglyoxime) (see Vangermain, column 4, line 43).

10. With respect to claims 17 and 18, Vangermain discloses wherein the catalyst comprises at least 0.001 mole of the organic compound per mole of metal from groups VI and VIII (see Vangermain, column 5, lines 33-34).

11. With respect to claim 19, Vangermain discloses a process comprising contacting a catalyst in a medium of a base of at least one refractory oxide, at least one metal of group VIII and at least one metal of group VI with an oxime compound (see Vangermain, column 3, lines 29-34; column 4, line 43; and column 5, lines 1-5).

12. With respect to claim 22, Vangermain discloses wherein the organic compound is prepared ex situ, then deposited or impregnated on the catalyst (see Vangermain, column 4, line 43; and column 5, lines 1-5).

13. Claims 2-4, 9-14, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vangermain (US 3,526,645) in view of Maskill (Howard Maskill, *Mechanisms of Organic Reactions*, New York, Oxford University Press Inc., 1996, p.62).

14. With respect to claims 2-4 and 20, see discussion *supra* at paragraphs 9 and 11.

Vangermain does not explicitly disclose wherein the oxime is formed by the reaction of an amine and a carbonyl compound.

However, oximes are known reaction products of amines and carbonyl compounds – e.g., the reaction of hydroxylamine and a ketone is known to produce oximes (see Maskill, page 62).

Thus, Examiner finds Applicant's claims 2-4 and 20 unpatentable over Vangermain over what is already common knowledge in the art (as evidenced by Maskill).

15. With respect to claims 9 and 14, the formation of an oxime is known to proceed through with a second group having a free pair of electrons (e.g., a hydroxyl group) (see Maskill, page 62).

16. With respect to claims 10-13, Vangermain discloses wherein the compound is dimethylglyoxime (see Vangermain, column 4, line 43).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 1, 5-8, 10-13, 17-19, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjornson (US 4,693,991) in view of Mansfield (US 5,648,305).

21. With respect to claims 1, 5-8, 17, and 18, Bjornson discloses a hydrocarbon hydroconversion catalyst (see Bjornson, Abstract) comprising a medium with a base of at least one refractory oxide (alumina) (see Bjornson, column 2, line 24), wherein the at least one refractory oxide contains from about 0.5 to about 8% by weight of at least one metal of group VIII (see Bjornson, column 2, lines 27-29), and from about 1 to about 20% by weight of at least one metal of group VI (see Bjornson, column 2, lines 25-27).

Bjornson does not explicitly disclose wherein his catalyst further comprises an oxime compound.

However, Bjornson notes that his catalyst will experience a gradual loss of activity due to the buildup of coke deposits (see Bjornson, column 6, lines 31-32), the result being that higher process temperatures will be required to maintain the same level of conversion (see Bjornson, column 6, lines 29-32). Bjornson also explains that

his catalyst may be regenerated when its activity drops below a desired level (see Bjornson, column 6, lines 32-34). In this regard, Mansfield discloses a process for treating hydrocarbon hydroconversion catalysts by the addition of oxime compounds (see Mansfield, Abstract). Mansfield explains that the addition of oxime compounds to the hydroconversion catalysts has the beneficial effect of reducing or retarding the formation of coke deposits on the catalysts (see Mansfield, column 1, lines 64-67; and column 2, lines 1-9).

Therefore, the person having ordinary skill in the art would have been motivated to modify the catalysts of Bjornson by adding the oxime compounds of Mansfield in order to reduce the formation of coke deposits on the catalysts of Bjornson.

Finally, the person having ordinary skill in the art would have had a reasonable expectation of success in modifying the catalyst of Bjornson as described above because Mansfield explicitly discloses that the addition of oxime compounds to hydrocarbon hydroconversion catalysts of the same type used in Bjornson (see Mansfield, column 2, lines 21-26).

22. With respect to claims 19 and 22, Mansfield discloses a process comprising contacting a catalyst with an oxime compound in a hydrocarbon charge (see Mansfield, column 5, lines 9-16).

23. With respect to claim 21, it is not seen where any new or unexpected results would be obtained in preparing an oxime compound in situ versus ex situ.

24. Claims 2-4, 9-16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjornson (US 4,693,991) in view of Mansfield (US 5,648,305) and

Maskill (Howard Maskill, *Mechanisms of Organic Reactions*, New York, Oxford University Press Inc., 1996, p.62).

25. With respect to claims 2-4 and 20, see discussion *supra* at paragraphs 21 and 22.

Mansfield does not explicitly disclose wherein the oxime is formed by the reaction of an amine and a carbonyl compound.

However, oximes are known reaction products of amines and carbonyl compounds – e.g., the reaction of hydroxylamine and a ketone is known to produce oximes (see Maskill, page 62).

Thus, Examiner finds Applicant's claims 2-4 and 20 unpatentable over Mansfield over what is already common knowledge in the art (as evidenced by Maskill).

26. With respect to claims 9-16, the formation of an oxime is known to proceed through with a second group having a free pair of electrons (e.g., a hydroxyl group) (see Maskill, page 62).

Response to Arguments

27. Applicant's arguments with respect to all claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Boyer whose telephone number is (571) 272-7113. The examiner can normally be reached Monday through Friday from 7:30 A.M. to 4:00 P.M. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola, can be reached at (571) 272-1444. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randy Boyer/

Examiner, Art Unit 1797

/Glenn A Caldarola/

Supervisory Patent Examiner, Art Unit 1797